# Commonwealth of Kentucky Division for Air Quality

## PERMIT APPLICATION SUMMARY FORM

Completed by: Mark Labhart

GENERAL INFORMATION:		
Name:	Carpenter Company	
Address:	200 Forrest Park Drive	
	Russellville, KY 42276	
Date application received:	March 24, 2005	
SIC/Source description:	3086, Plastics Foam Products	
Source ID #:	21-141-00012	
Source A.I. #:	2751	
Activity #:	APE20050001	
Permit number:	V-06-028	
APPLICATION TYPE/PERMIT ACTIVITY:		
[x] Initial issuance	[ ] General permit	
[ ] Permit modification	[x] Conditional major	
Administrative	[x] Title V	
Minor	[x] Synthetic minor	
Significant	[x] Operating	
[ ] Permit renewal	[ ] Construction/operating	
COMPLIANCE SUMMARY:		
[ ] Source is out of compliance	[ ] Compliance schedule included	
[x] Compliance certification signe	*	
[n] comprance comment on signe	<u> </u>	
APPLICABLE REQUIREMENTS LIST:		
	NSPS [x] SIP	
	NESHAPS [ ] Other	
[ ] Netted out of PSD/NSR [ ]	Not major modification per 401 KAR 51:001, 1(116)(b)	
MISCELLANEOUS:		
[ ] Acid rain source		
[ ] Source subject to 112(r)		
[x] Source applied for federally en	forceable emissions cap	
[ ] Source provided terms for alter	=	
[ ] Source subject to a MACT star	ndard	
[ ] Source requested case-by-case	112(g) or (j) determination	
[ ] Application proposes new con-		
[x] Certified by responsible official	al	
[x] Diagrams or drawings included	d	
	ion (CBI) submitted in application	
[ ] Pollution Prevention Measures	· · · · · · · · · · · · · · · · · · ·	
[ ] Area is non-attainment (list po		
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#### **EMISSIONS SUMMARY:**

Pollutant	Potential (tpy)	Allowable (tpy)
$PM/PM_{10}$	92.1	
$SO_2$	0.14	
NOx	23.8	
СО	20	
VOC	626.5	225 *
Single HAPs		
Methanol (67-56-1)	11	9
Source wide HAPs	14.4	22.5

<sup>\*</sup> Synthetic Minor Limit

## **SOURCE DESCRIPTION:**

Carpenter Company makes flexible polyurethane foam and other comfort cushioning products. The main operation is slabstock foam production. The foam is produced in large "buns" which can then be cut to make many different products. Slabstock trim scrap is used in rebond production. Here the scrape foam is ground into small pieces that are bonded together in a large mold. The molded rebond foam can then be sliced into desired shapes.

Foam fabrication is another process taking place at Carpenter. In the fabrication process foam pieces are glued to backing materials or glued to each other to make intricate shapes. The foam fabrication process is very different than either slab stock or rebond production. The foam is completely cured so there are no emissions for the foam itself. Emissions from the fabrication process are from the adhesives used to bond the pieces together.

Carpenter also produces cushioning products using adhesive bonded and thermally bonded polyester fibers. VOC and HAP are emitted from the adhesives, but the thermal bonding process has negligible emissions. Remaining equipment and operations at Carpenter are support for the previously described operations, i.e. facility boilers, bulk material handling equipment, railcar unloading, etc.

## EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

Carpenter Company has requested voluntary Synthetic Minor permit emission limits of 225 tons per year VOC, plus additional limits on Hazardous Air Pollutants (HAP) of 9.0 tons per year or less for individual HAPs and 22.5 tons per year or less for all combined HAP emissions.

### **OPERATIONAL FLEXIBILITY:**

Carpenter Company is not restricted as to hours of operation or quantity of product produced while remaining within the caps above.